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Amendment A

REMARKS

The specification and claims have been amended without adding new matter in order to correct minor informalities and to address other issues raised by the Examiner. Claims 1, 3, 7, 9, 12-13, 16, 19 and 29 have been amended. Claims 32-42 have been added. Claims 2, 8, 17 and 18 have been canceled without prejudice. Thirty eight (38) claims remain pending in the application: Claims 1, 3-7, 9-16 and 19-42. Reconsideration of claims 1, 3-7, 9-16 and 19-31 in view of the amendments above and remarks below and consideration of new claims 32-42 is respectfully requested.

By way of this amendment, Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

Specification

1. The specification is objected to for not giving a complete reference to the copending application including the serial number and current status. Applicants have added the application number and status by amendment; thus, it is submitted that the objection is overcome and should be withdrawn.

Claim Rejections - 35 U.S.C. §102

2. Claims 1-4, 6-7, 10-24 and 29-30 stand rejected under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent No. 5,290,221 (Wolf).

Claims 2, 17 and 18 have been cancelled.

Independent claims 1, 12, 13, 16 and 29 have all been amended herein to variously include the limitation found in dependent claim 8. That is, claims 1, 12 and 13 have been amended to include "a first process monitor coupled to the input conduit (of

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the treatment chamber portion) and a second process monitor coupled to the output conduit (of the treatment chamber portion)", which amendment is supported at least by claim 8 as originally filed. Similarly, claims 16 and 29 have been amended to include the steps of "monitoring a first parameter at the input of the treatment chamber portion and monitoring the first parameter at the output of the treatment chamber portion", which amendment is also supported at least by claim 8 as originally filed.

Wolf clearly does not disclose or teach these recited features.

Additionally, it is noted that claim 8 was not rejected in view of Wolf alone, claim 8 is rejected in view of Wolf in combination with another reference, the other reference asserted to teach the limitations of claim 8 (this rejection is addressed below).

Accordingly, since Wolf does not disclose each and every limitation of independent claims 1, 12, 13, 16 and 29, Wolf does not anticipate these claims or any claims dependent thereon. Thus, it is respectfully submitted that the rejection of the remaining pending claims 1, 3-4, 6-7, 10-16, 19-24 and 29-30 is overcome and should be withdrawn.

Claim Rejections - 35 U.S.C. §103

3. Claims 5, 8-9, 25-28 and 31 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 5,290,221 (Wolf) in view of U.S. Patent No. 4,871,559 (Dunn et al.).

Claims 5 and 8-9 depend on claim 1, which has been amended herein to recite "a first process monitor coupled to the input conduit (of the treatment chamber portion) and a second process monitor coupled to the output conduit (of the treatment chamber portion)". It has been shown above that Wolf does not teach this limitation and it is also further asserted that Dunn does not teach this limitation.

Dunn teaches the use of pulsed light to treat the surfaces of food products to be preserved (see Abstract) without raising interior temperatures of the food product

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(see co. 7, lines 18-19). Dunn teaches measuring temperature at the surface of the food product, such as curds of cottage cheese or fish (see col. 7, lines 26-27; col. 17, Example 1 (col. 17, lines 33-35); and Example 5 (col. 19, line 64 through col. 20, line 4)) as a measure of the effectiveness of the light treatment. Although Dunn mentions that it is possible to treat fluids with the pulsed light treatment (see col. 6, line 19 through col. 7, line 2), there is no discussion or examples to suggest measuring the temperature of fluids during treatment.

Accordingly, Dunn does not teach "process monitors (e.g., that can measure the pressure or temperature of fluid flow) at the input and output of a treatment chamber through which fluid to be treated with the light flows", as recited in the claims. Dunn provides no motivation to locate or position a temperature sensor at the input and output of a fluid treatment chamber since Dunn does not discuss fluid temperature as a factor in fluid treatment effectiveness. Dunn only teaches measuring temperature in connection with the surface temperature of food products and provides several examples of this type of treatment. Furthermore, there is no suggestion or motivation to locate or position a temperature sensor (one example of a process sensor) at the input and output of Dunn's food product treatment area since the food product to be treated by Dunn does not flow through the treatment area, it is a solid object that rests at the treatment area. Thus, the teaching of Dunn if combined with Wolf, at best, might arguably suggest a temperature sensor to measure the temperature of fluid within the treatment chamber of Wolf, but certainly would not teach a temperature sensor at the input and output of the treatment chamber of Wolf.

Therefore, since Dunn does not teach or suggest "process monitors at the input and output of a treatment chamber through which fluid to be treated with the light flows" as recited in claim 1 in combination with Wolf, it is respectfully submitted that the combination of Wolf and Dunn does not render claim 1 or any claims dependent thereon obvious. Therefore, it is respectfully submitted that the rejection of

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claims 5 and 8-9 is overcome and should be withdrawn.

For similar reasons, independent claims 12 and 13 would not be rendered obvious by the combination of Wolf and Dunn.

Claims 25-28 depend on claim 16 while claim 31 depends on claim 29. Claims 16 and 29 have been amended herein to recite the steps of "monitoring a first parameter at the input of the treatment chamber portion (that a fluid product to be illuminated flows through) and monitoring the first parameter at the output of the treatment chamber portion". For at least the same reasons as presented above with respect to claim 1, since Dunn does not teach or suggest the recited limitation in combination with Wolf, it is respectfully submitted that the combination of Wolf and Dunn does not render claims 16 and 29 or any claims dependent thereon obvious. Therefore, it is respectfully submitted that the rejection of claims 25-28 and 31 is overcome and should be withdrawn.

Double Patenting

4. Claims 1-4, 7, 10-24 and 29-30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 28-29 and 32 of copending application no. 09/976,597.

Copending application no. 09/976,597 has been abandoned; therefore, it is respectfully submitted that the provisional rejection should be withdrawn.

New Claims

5. Newly submitted claims 32-42 are believed to be allowable because they are directed to that which is not shown or suggested in the prior art.

Support for new claims 32-42 can be found at least in originally filed claims 8-9 and at page 21, line 22 through page 22, line 7 of the specification.

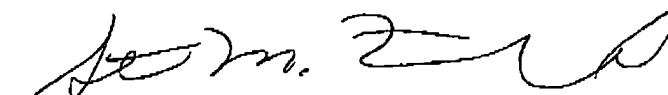
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CONCLUSION

Applicants submit that the above amendments and remarks place the pending claims in a condition for allowance. Therefore, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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